

MILITARY SPECIFICATION

BOOTS, SAFETY (NONSPARKING)

This amendment forms a part of Military Specification MIL-B-87068, dated 30 October 1979, and is approved for use by the Navy Clothing and Textile Research Facility, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

Page 1

1.2, Under sizes, delete: "5" and substitute: "4".

Page 4

2.2, Under "Other Publications," delete: "ANSI Z41.1-1972" and substitute: "ANSI Z41.1-1976".

3.3.1, Line 4, delete: " 4 to 5 1/2" and substitute: "4 1/2 to 6".

Line 5, delete: "22" and substitute: "28".

Line 13, delete: "these defects may appear in the tongue or counter-pocket" and substitute: "rough or coarse grain, loose or pipey leather (no excessive stretch) may appear in the tongue or counterpocket. Boney leather (which will not crack) may be used in the counterpocket".

Page 5

3.3.1.2 Delete third sentence in its entirety and add new sentence: "The contractor shall certify that a top, pigment finish has not been applied. The color shall be uniform".

3.3.2 After first sentence add: "The leather shall be drum dyed black. Leather previously dyed or finished shall not be used".

Delete last sentence and substitute: "All the specimens tested for water resistance shall withstand a minimum of 50 taps".

Add new sentence: "As an alternate, upper leather may be used for eyelet stays except that the leather shall be split to a thickness of not less than 2 1/4 ounces. Grain splits only shall be used."

3.3.3 Line 3, following "glove", add "or pigskin".

3.3.4 Line 2, after "sheepskin", add "pigskin".

Page 6

3.3.5 Add the following:

"As an alternate, the insoles may be cut from Texorist material. The Texorist shall contain 0.25 to 1.00 percent Copper-8-quindinolate uniformly throughout the insole. The insole shall be 0.116 (+0.010) inches thick. The insole shall be cut with the heel-to-toe direction across the machine direction of the Texorist material. The Texorist insole shall have a stuck-on rib applied to the printed side of the material".

3.3.9 Delete and substitute:

"3.3.9 Welting, synthetic. The synthetic welting shall be of a flat top design, bright, black in color and formed with or without a storm welt with a medium size bead. The welting shall be of sufficient width to assure the required edge extensions on the finished boot are met (see 3.7.19). The thickness of the welting shall be 0.12 to 0.13 inches. The finished welting shall be smooth, uniform in texture and free from all defects that affect serviceability and appearance. The welting shall conform to the requirements of Table I when tested as specified in 4.3.1."

Table I, delete, "Peel" and substitute: "Fuel"

Under "Brittle Point", delete: "15 1/4 F (-26 1/4C)" and substitute: "-15°F".

Under "Brittle Point after aging", delete "20 1/4F (+6.7 1/4C)" and substitute: "20°F".

Page 7

3.3.10.1 Add the following:

"Counters shall be chosen for correct size to fill the counterpocket of the finished boot."

3.3.12.1 Delete in its entirety

Page 8

3.3.14.1 Add the following:

"Also, as an alternate, a virgin, ionomer resin (Surlyn) laminated with a combination of flannel fabric on one side and a flannel nonwoven or sheeting fabric on the other side with a combined thickness of 0.033 (+ 0.005) inches may be used and cemented to the vamp lining with a suitable adhesive."

Page 9

3.3.15

Line 8, delete: "125 1/4F (51.8 1/4C)" and substitute: "125°F"

Line 9, delete: "77 1/4F (25 1/4C)" and substitute: "77°F".

Line 15, delete: "150 1/4F (65.6 1/4C)" and substitute: "150°F".

Line 22, delete: "125 1/4F (51.8 1/4C)" and substitute: "125°F".

Page 10

3.3.16.2, Line 13, delete: "1/2 (+ 1/8)" and substitute: "3/8 to 7/8".

Add new paragraph:

"3.3.16.2.1 Fiberglass shank. As an alternate, a fiberglass shank (see 6.5) without a shankboard may be used. The shank shall consist of glass fibers impregnated with vivyl ester resins and encased in a plastic sleeve or tube. The width of the uncured encase fiberglass resin shall be 7/8 (+ 1/32) inch."

The shank shall be cured and bonded to the insole and conform to the shape of the last. When fully cured, the shank (glass and resin area) shall be 5/8 ( $\pm$  1/16) inch in width. The cured lengths of the shank shall be graded as specified in 3.3.16.2. The forward end of the shank shall have a 1/2 ( $\pm$  1/8) inch taper. The heel end shall be tapered a minimum of 3/8 inch."

Page 11

3.3.18.4 Delete: "12, 27 or 39" and substitute: "from No. 12 through 39".

Page 12

3.3.23 Delete in its entirety.

3.3.24 Delete in its entirety.

Page 13

3.4, Line 1, after "with" add: "optional".

After first sentence, add: "There shall be no more than 1/4 inch variation in height within the pair".

Delete fifth sentence and substitute:

"The Government patterns may be slightly modified for stitching and lasting case when approved by the procuring activity. Lasting allowance shall be determined by the contractor".

Page 14

Table IV, Under "Counterpocket-backstay" and "Tongues", delete: "and half".

Under "Toe-tips", delete: "Half" and substitute: "Whole".

Add new paragraph:

"3.5.1 Graduated grading. Graduated grading may be used in lieu of requirements specified in Table IV. When used, it shall be in accordance with the following:

- a. Extra narrow and narrow
- b. Regular and wide
- c. Extra wide

Casing up and down is limited to one half size. Die grading may be used for backstay and tongues and shall encompass not less than four sizes".

3.6 Line 4, after "vamp" add: "Toe-tip".

At the end of paragraph, add: "Patterns may be slightly modified for stitching and lasting ease when approved by the procuring activity. Out-nicks for toe-tip and gusset placement may be used."

3.7.1 Line one, delete "cut" and substitute: "out".

3.7.2, Line 4, delete: "at option of the contractor" and substitute: "an amount in accordance to commercial practice for each area by the contractor".

Page 15

Under skiving requirements. Under "vamp" location, substitute the following: "Throat, Wings and toe lasting edge".

Add the following: "Counterpocket and backstay-lasting edge".

3.7.4 Line 1, delete: "inside" and substitute: "outside quarter".  
Delete reference to "non-sparking" marking.

Add new paragraph:

"3.7.4.1 ANSI labeling. The boots shall be labeled to indicate that they conform to Class 75 safety-toe requirements of American National Standards Institute, ANSI Z41.1. Each boot shall have an indelible printed cloth label sewn to the inside of the shoe on the tongue. The numbers and letters shall be a minimum of 3/16 inch in height. The label shall read as follows:

ANSI  
Z41.1-1967/75

3.7.5 Line 3, delete: "401" and substitute: "502 or 503".  
Delete third sentence in its entirety.

Page 16

3.7.5.1 Line 2, after "two", add: "double".  
Line 4, after "boot" insert a period "(.)" and delete remainder of sentence.

Delete second sentence in its entirety.

3.7.5.2 After first sentence, add:  
"The leather toe tip shall overlap the clothing lining 3/8 to 1/2 inch and the cloth portion of the seam shall face the foot."

3.7.5.3 Line 2, delete: "(flesh side out)".

Add new sentence: "Prior to stitching, the toe-tip may be cemented to the vamp or may be tacked (stitched) to the vamp after fitting for lasting ease."

3.7.5.4 Delete first sentence and substitute: "The quarter eyelet stay shall be cemented, net fit to the quarter edge and underlap the tongue."

Second sentence, delete the following:

"with one row of stitching not more than 3/32 inch from the edge of the tongue and a second row placed now more than 3/32 inch from the edge of the vamp".

Line 10, delete: "or under".

Page 17

3.7.5.7, delete sentences 3, 4 and 5 and substitute:

"The vamp bar shall consist of two rows of stitching on size 9 boot and up, and one row of stitching on sizes 8 1/2 and below. The bar stitching shall be placed outside and above the vamp stitching not more than 1/16 inch and parallel to the vamping row at each blucher ear and be 5/8 (+ 1/16) inch in length."

3.7.6 In title delete: "Insoles" and substitute: "Leather Insoles".

First sentence delete: "to obtain uniform channeling".

3.7.6.1 Line 6, delete: "lip scoring cut" and substitute: "score mark".

Line 7, delete in its entirety.

Line 8, delete: "thickness and the scoring for channeled insoles or marking".

Line 12, delete: "lip cutting and"

Page 18

3.7.6.2 Delete in its entirety.

3.7.6.2.1 Delete: "3.3.2.5.1" and substitute: "3.3.25.1".

3.7.6.3 Delete in its entirety.

3.7.7 Add new sentence to paragraph:

"When the alternate method is used to accommodate automatic equipment the grain surface of the leather lining may be lightly buffed to provide an adequate surface to which the adhesive will adhere. The buffed area shall be no more than two inches in from the front (center of toe) edge of the lining and grade out to the side of the toe in the toe lasted area".

Page 19

3.7.10 Delete in its entirety and substitute:

"3.7.10 Second seam sealing. The trimmed inseam, inseam stitching, inside of the rib, nails, staples or tack holes, tacks and staples shall be given a heavy coat of seam sealer specified in 3.3.11.1 and allowed to dry at room temperature".

Page 20

3.7.12 Line 1, after "bottom", add: "underside of welting".

Page 21

3.7.20.1 Delete second sentence in its entirety.

3.7.20.3 Delete and substitute:

"3.7.20.3 Final finish. Boots shall be repaired and properly renovated using material and methods specified in 3.3.20 to 3.3.22. A suitable dye solution that does not compromise the water resistance of the leather may be used to level off the color of the boots. All raw edges shall match the color of the upper leather. Acrylic or resin finishes shall not be used. The contractor shall furnish a Certificate of Compliance for this requirement".

3.7.22 Line 2, delete: "firmly" and substitute: "securely".  
Line 3, delete: "at all points".

Page 23

Table V

Under Sample unit for testing for "Water Penetration" and "Water Absorption", delete: "10" and "5" and substitute: "15" and "8" respectively.

After "lining Leather", add the following in their respective columns as indicated:

"insoles (Texorist) Mat'l. Ident.	3.3.5	<u>2/</u>
Copper-8-Quin	3.3.5	<u>2/</u>
Thickness	3.3.5	<u>2/</u> "

Page 27

Table V After "Steel Shanks", add the following in their respective columns as indicated:

"Fiberglass shank	Mat'l Ident.	3.3.16.2.1	<u>2/</u>
	Width	3.3.16.2.1	<u>2/</u> "

Page 29

4.3.2.1 Line 1, delete: "The insoles" and substitute: "The leather insoles".  
At the end of paragraph, add the following"

"The Texorist insoles shall be examined for the defects listed below. The inspection level shall be level II and the AQL shall be 4.0 DHU.

Any hole, cut, tear or gouge  
Any brittle area or evidence of delamination  
Thickness not as specified  
Insole outline not conforming to required pattern  
Insole not cut in specified direction"

Page 30

Under Quality of leather, delete defects 4,5 and 8 and substitute:  
"Unacceptable leather characteristics as specified in 3.3.1

★"

Add new defect"

"ANSI label missing 1/"

Add footnote "1/"

"1/ The contractor shall perform 100% examination for this defect. Any defective unit found shall be repaired, replaced or excluded from the in-process lot".

Page 33

Under "Pairing", add the following:

"Height of boot more or less than specified-----\*"

Under "lining", delete: "major" defect, and substitute: "\*"

Under "upper leather" add:

"Unacceptable leather characteristics specified in 3.3.1---\*"

Page 34

Under "Seams and stitching", Line 5, after "continuous" and: "skipped".

"Needle holes or chews", change "major" defect to "\*"

Page 35

Under "outsole stitching" Line 9, after "the" add: "rear"

Line 10, after "to the", add: "rear of the".

Page 36

Under "Marking", add new defect and footnote:

"ANSI label missing 4/ "major"

"4/ When this defect is found, the defect shall be scored and the end item shall be repaired, replaced or excluded from the lot".

Page 39

4.4.1.5, Line 4, delete: "70 1/4C (+ 2 1/4)" and substitute: "70°C(+2°C)"

4.4.1.6, Line 2, delete: "100 1/4C(+ 2 1/4C)" and substitute: "100°C(+2°C)".

Page 41

4.4.5.2, Line 5, delete: "150 1/4C" and substitute: "150°C".

Line 6, delete: ".004" and substitute: ".001".

4.4.6, Line 5, delete: "23 1/4 (+ 1 1/4C)" and substitute: "23°(+1°C)".

Page 44

Add the following:

"6.5 Fiberglass shank. A fiberglass shank manufactured by American Shoe Machinery Co., 30 Nashua Street, Woburn, MA 01801 under the designation of "TRU-FIT" has been found to meet the requirements of 3.3.16.2.1."

Page 45

Delete "Figure 1" and substitute new "Figure 1".

Page 46

Delete "Figure 2".

MIL-B-87068  
Amendment-1

Custodian:

Navy - NU  
Air Force - 11

Preparing Activity:

Navy - NU

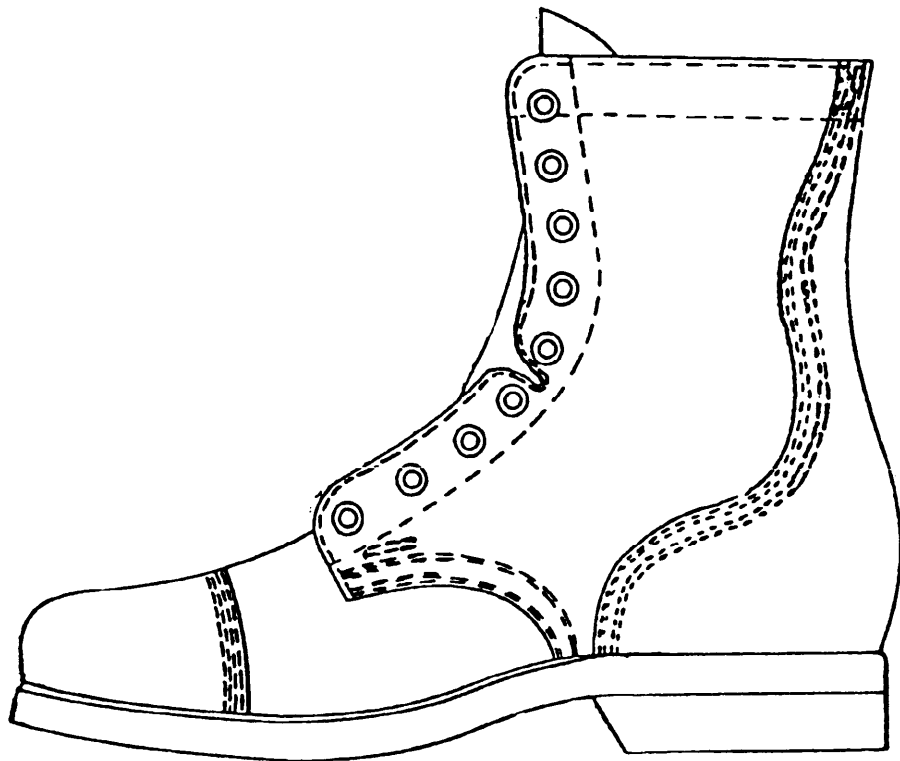
Project No. 8430-0320

Review Activities:

Navy - AS  
Air Force - 45, 99  
DLA - CT

User Activities:

Navy - YD, CG, MC, OS, MS



*FIG. 1 - BOOTS , SAFETY (NONSPARKING)*

